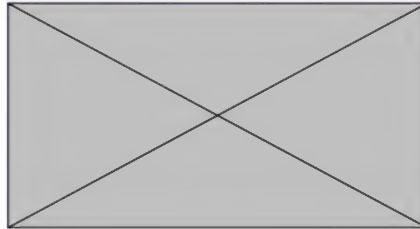


To: sfoss@blm.gov[sfoss@blm.gov]
From: SVP
Sent: 2017-12-04T15:16:02-05:00
Importance: Normal
Subject: SVP will take legal action to block cuts to Grand Staircase-Escalante and Bears Ears
Received: 2017-12-04T15:23:36-05:00



Grand Staircase-Escalante and Bears Ears National Monuments

04 December, 2017

Earlier today President Trump announced that he will make large cuts to Grand Staircase-Escalante and Bears Ears National Monuments in Utah. Scientifically important paleontological resources motivated the creation of both monuments. High priority is therefore given to inventorying and protecting their paleontological resources and special funding is available for researchers who work on monument property.

SVP, in collaboration with several partner groups, will be taking legal action to block Trump's cuts. Not only do we believe that key paleo resources will be endangered when they are removed from the monuments' boundaries, but we believe that the President lacks the legal authority to reduce those boundaries. Loss of monument status endangers funding streams for paleontological research and exposes sites to damage or destruction from multiple-use activities, which could feasibly include ranching, mining, or shale gas extraction.

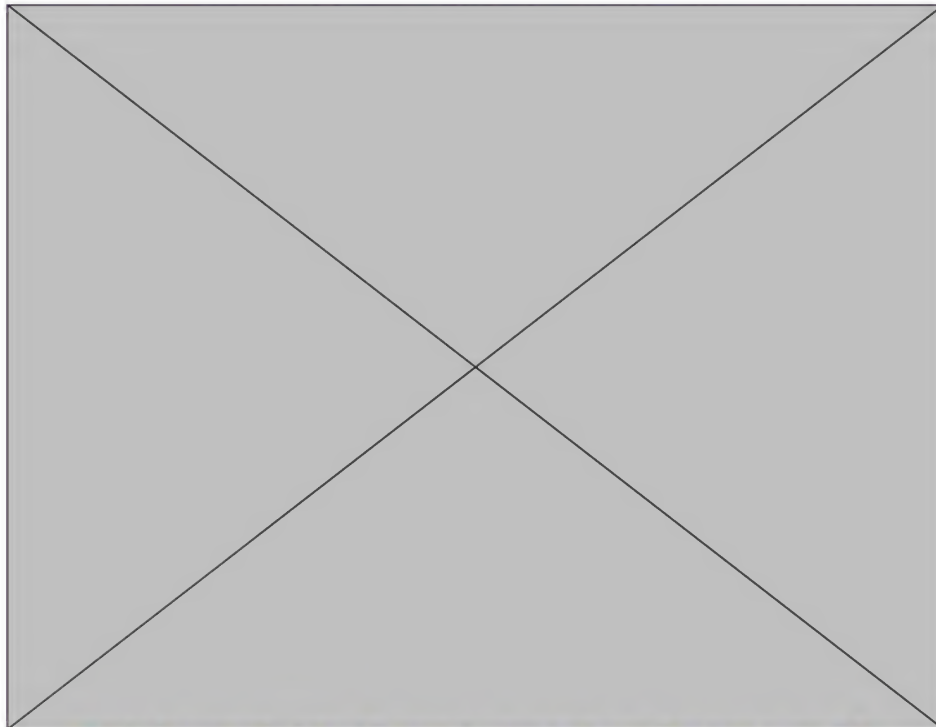
SVP's concern for the integrity of these monuments grows out of our mission to "support and encourage the discovery, conservation, and protection of vertebrate fossils and fossil sites". Our Society has advocated for protection of vertebrate fossils on US federal land since the 1980s, culminating in the Paleontological Resources Preservation Act of 2009. Regulations under this act have still not been published by the Department of Interior.

Maintaining the scientific integrity of the monuments is high priority for SVP. Society members were active proponents for the establishment of both monuments because of the unique paleontology that is now protected within their boundaries.

Approximately 10% of SVP members have either actively engaged in long-term research at the Monument or have made short-term research visits for field trips or site visits. Of the 56 authors in the 2013 volume about Kaiparowits paleontology at Grand Staircase, 28 were SVP members. Similarly, 27 out of the 35 scientific papers published in the last year about the paleontology of Grand Staircase were authored by SVP members.

Cuts at Grand Staircase-Escalante National Monument

Grand Staircase-Escalante National Monument (GSE NM) was established in 1996 in large part to preserve the unique fossils that had been discovered there over the preceding decade. Twenty additional years of research have pinpointed more than 3,000 scientifically important fossil localities at GSE NM. The monument is perhaps best known for its exquisite preservation of Late Cretaceous ecosystems. The Kaiparowits, Wahweap, Straight Cliffs, and Tropic Shale formations include one of the most diverse large herbivorous dinosaur faunas in the world, some of the only Cenomanian and Santonian aged mammals anywhere, and the earliest mosasaurs. GSE NM also preserves the type section of the Permian-aged Kaibab Limestone, key Triassic faunas from the Moenkopi and Chinle formations, as well as the largest petrified forest outside Arizona, and extensive trackways from the thick sandstone formations of the Jurassic.



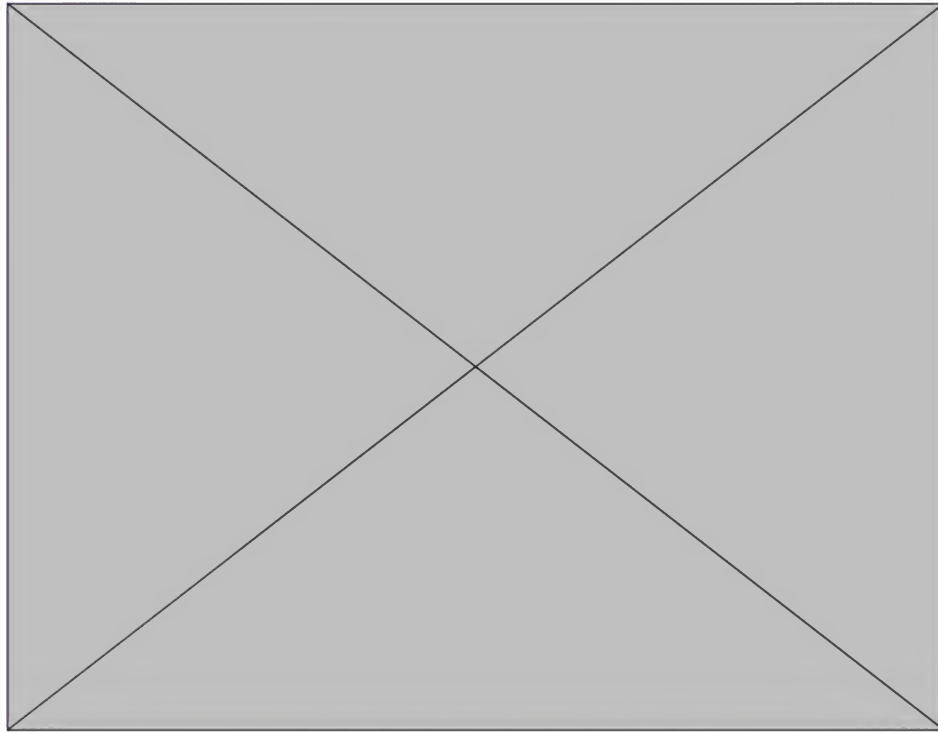
Surveying the Kaiparowits Plateau with monument paleontologist Alan Titus (photo by David Polly).

If the maps leaked last week accurately describe Trump's revised boundaries, the cuts will have a severe impact on paleontology at GSE NM. Those cuts will excise the following resources from the monument, thus removing them important research funding streams and many forms of protection:

- more than 400 scientifically important paleontological sites
- the type area of the Permian Kaibab Limestone
- all of the Permian and most of the Triassic units
- large expanses of the Triassic petrified forest in the Circle Cliffs region that was named in the 1996 proclamation as one of the reasons for establishing the Monument
- virtually all of the Tropic Shale, including all of its most fossiliferous exposures, which record the anoxic-driven Cenomanian-Turonian extinction, the geologically oldest mosasaur, missing links in the origin of polycotyloid plesiosaurs, and the turnover between pliosaur and ichthyosaur dominated oceans to the polycotyloid and mosasaur dominated seas of the late Cretaceous
- one third of all fossil mammal sites have been excluded, including the unique mammal sites from the Santonian and Cenomanian that were one of the primary reasons the monument was created in 1996
- some of the most important sites in the Wahweap Formation, which was also highlighted in the 1996 proclamation, will be excluded, including the type locality of the ceratopsian *Machairoceratops* and a new species nodosaur

Cuts at Bears Ears National Monument

Bears Ears National Monument was established only last December, 2016, following a long history of advocating by Native American tribes, conservationists, and scientists. Bears Ears is in the southwestern part of Utah near the Four Corners area. While paleontological research has been carried out there for more than 90 years, the short time that Bears Ears has enjoyed monument status means that it has not yet been as extensively studied as GSE NM. Nevertheless, Bears Ears has the potential to be as paleontologically spectacular as Grand Staircase. Bears Ears is stratigraphically older. Extensive exposures of the Pennsylvanian- and Permian-aged Cutler Group preserve some of the oldest terrestrial vertebrates, as well as highly fossiliferous sites that document vertebrate ecosystems before the Permian-Triassic mass extinction. The Triassic-Jurassic transition is especially well preserved in the Red Canyon and Indian Creek parts of the Monument, and the Jurassic sections near Monticello and Blanding, Utah have produced many important finds, including the prosauropod *Seitaad*.



If the leaked maps are accurate, the cuts to Bears Ears will reduce the monument to a fraction of its current size. Those cuts will exclude most of the scientifically important paleontological resources from monument-status:

- all of the Pennsylvanian marine units will be excluded
- the Pennsylvanian-Permian transition in the lower Cutler Group, which is notably exposed in Valley of the Gods, will be completely excluded
- a site in the Cedar Mesa Sandstone that preserves an ancient Permian log jam which trapped an amphibian (*Euryops*) and asynapsid (*Sphenacodon*), a site that has already suffered from extensive looting, will lose its monument protections
- a massive new Triassic bone bed at Fry Canyon, which has also suffered from looting, will be excluded
- unusual Triassic vertebrate burrows will be cut
- the youngest part of the Monument's section will be excluded, including all of the Cretaceous outcrops of the Naturita Formation that have produced important angiosperm floras

- widespread Quaternary sites, including cave faunas, pack rat middens, and floras will be excluded

If you conduct research at GSE NM or Bears Ears please let us know

If you conduct research in areas of either monument that are slated to be cut, please let David Polly know at svp_president@vertpaleo.org. This information is useful for documenting how reductions to the monuments impact SVP and its members.

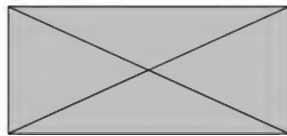
What's to come

SVP will be monitoring the status of the Monuments over the coming days and weeks. If the cuts above are made, we will join with our partners in filing law suits aimed at blocking the administration's actions. First-class legal support is being provided to SVP on a *pro bono* basis by two of the nation's top environmental law firms. The cases we have assembled rest on the arguments that the President does not have the legal authority to reduce the boundaries and that such reductions will negatively impact the scientific mission of both monuments and thus the research carried out by SVP members.

As new developments emerge, we will keep you informed. Information and links will be posted on the SVP website at <http://vertpaleo.org/What-is-Vertebrate-Paleontology/Fossil-Preservation-Law-in-the-US.aspx>.

Thank you to all the SVP members who have come together to assemble the information needed to develop our legal case and to produce the maps and other documents that support it. Even though the review of the monuments has threatened our science, the collaborative spirit of SVP's members is tremendously heartening and our collective knowledge is truly world class.

Sincerely yours,



P. David Polly
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Emily J. Rayfield
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